

Fig. 1

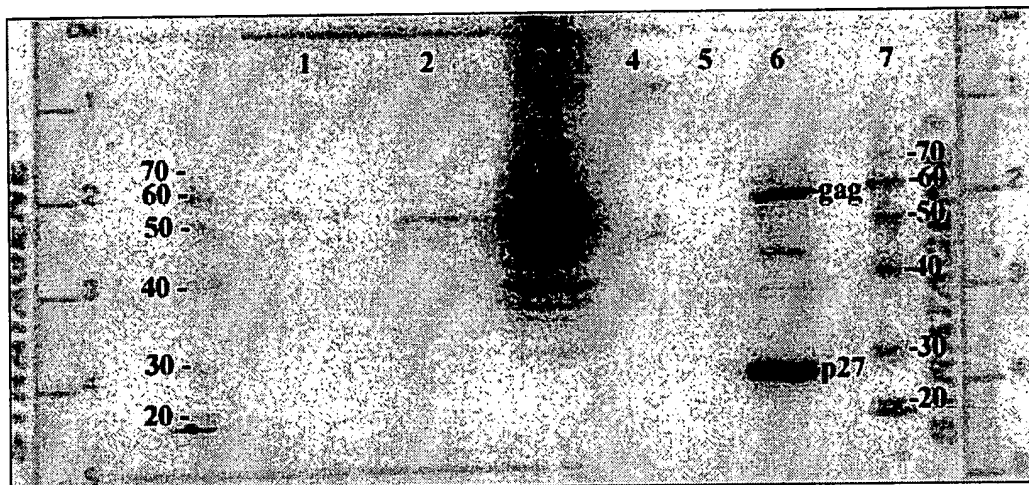
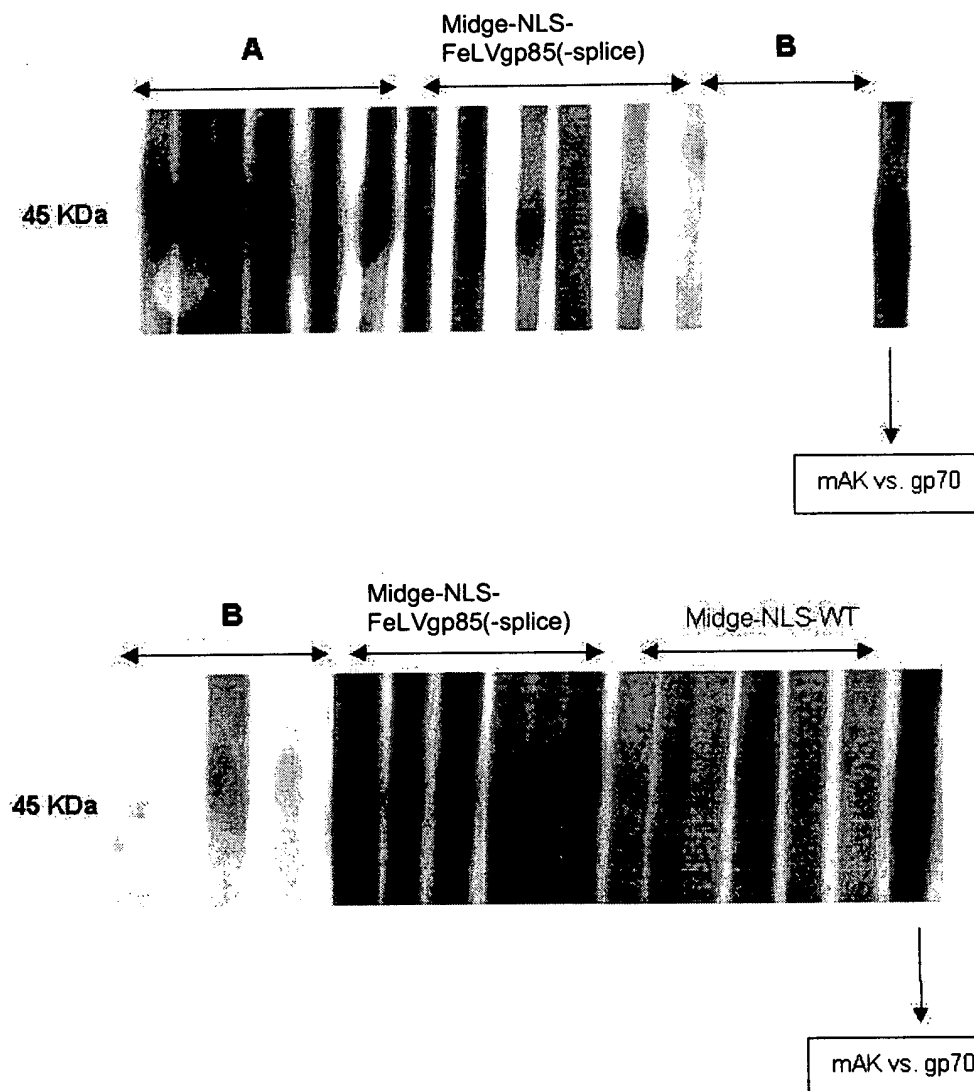


Fig. 2



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Fig. 3



SeqID2	1	ATGGGCCAAACTATACTACCCCTTGAGCCTCACCCCTCAACCCTGCGTGTGAAGTTTCAG
SeqID5	1	" " " " " " G " C " " C " AGC " " " " " " "
SeqID2	61	GACCGGGCCCCGTAATCAGGGTGTCTGAAGTCCGGAAAAAGAAATGGATTACACTGTGTGAA
SeqID5	61	" " CA " " " " A " G " C " " " " " C " " G " G " GA " " " " G " " " " " " " C " C " " " " " C " " G
SeqID2	121	GCCGAATGGGTAATGATGAATGTAGGTTGGCCCCGAGAAGGAAC TTTCACCATTGACAAT
SeqID5	121	" " " " " " G " " " " " G " " " " " " " " " " C " " G " C " " " " " A " G " G " C " " C " " " " " " " " " C " " " " C
SeqID2	181	ATTTCACAGGTCGAGGAGAGAATCTTCGCCCCGGGGCCATATGGACACCCAGATCAAATC
SeqID5	181	" " CAGC " " " " " " G " C " " C " " C " " C " " " " " " " " " C " " C " " G " " "
SeqID2	241	CCTTATATTACCACGTGGAGATCCCTAGCCACAGACCCCCCTCCATGGGTTTCGCCCATTTC
SeqID5	241	" " C " " C " " C " " " " " C " " " " " " " GAG " " " G " " " " " " C " " " " " " " " " " C " " C " " " " " GA " G " C " " "
SeqID2	301	CTACCCCTCTCTAAGCATCCCAGGACAGATCCTCCCGAGCCTCTTTTCGCCGCAACCTCTTT
SeqID5	301	" " G " " " " " C " " C " " " " " " " " " " " " " " " " " " C " " C " " " " " " " " C " " GAGC " " C " G " C " " G
SeqID2	361	GCGCCGCAACCC_TC_TTCCCCCCA_CCCCGTCCTCTACCCCGTTCTCCCAAACCCAGAC
SeqID5	361	" " C " " C " G " " AG " GCC " " " " " T " AG " AG " " G " " " " " " " G " G " " " " G " C " " "
SeqID2	418	CCCCCAAGGC GCCTGTATTACCACCCAATCCTTCTTCCCTTTAATTGATCTCTTAACA
SeqID5	421	" " " " " " " " " " C " " C " GC " G " C " " " " " C " " CAGCAG " " CC " G " C " C " C " GC " G " C
SeqID2	478	GAAGAGCCACCTCCCTATCCTGGGGGTACGGGCCAACACCGCCGTACAGGCCCTAGAACC
SeqID5	481	" " G " " " " " C " " C " " " " " C " " C " " C " " " " C " " C " C " CAGC " " " " C " G " " "
SeqID2	538	CCAATGCCTCCCCGATTGCCATCCGGCTGCGAGAACGACGAGAAAATCCAGCTGAGAAA
SeqID5	541	" " C " C " " AG " " C " C " " " G " A " " " " A " G " GA " GA " G " G " C " C " C " " " " G
SeqID2	598	TCTCAAGCCCTCCCCTTAAGGGAAGACCCAAACAACAGACCCCAGTACTGGCCATTCTCG
SeqID5	601	AGC " G " " " " G " " C " G " " " " G " " " " C " " " " " " " G " " " " " " " " " " " " C " " AGC
SeqID2	658	GCCTCTGACCTGTACAATTGAAAATTGCATAA_CCCCCCTTTCTCCCAGGACCCAGTGGC
SeqID5	661	" " AGC " " " " " " " " " " C " " " " GC " " " C " " " " " " _ " AG " " " " " " C " " " "
SeqID2	717	CCTAACTAACCTAATTGAGTCCATTTTAGTGACACATCAGCCAACCTGGGACGACTGCCA
SeqID5	720	" " " G " C " " " " G " C " " AG " " CC " G " " " " C " C " " " " C " " " " " " " " " " " "
SeqID2	777	ACAGCTCTTACAGGCTCTCCTGACGGCAGAGGAGAGACAAAGGGTCCTCCTTGAAGCCCG
SeqID5	780	G " " " " GC " G " " " " C " G " " " " C " C " " " " " G " G " " " G " G " G " G " A "
SeqID2	837	AAAGCAAGTTTCAGGCGAGGACGGACGGCCAACCCAGCTGCCCAATGTCGTTGACGAGGC
SeqID5	840	G " " " " G " G " C " " " " " " " " CA " " " C " " " " " " " " " " C " G " G " " " " "
SeqID2	897	TTTCCCCTTGACCCGTCCCAACTGGGATTTTTGTACGCCGGGAGGTAGGGAGCACCTACG
SeqID5	900	C " " " " C " " " " A " G " " " " " " " " C " C " C " C " C " C " C " " " " " " " " GA "
SeqID2	957	CCTTTATCGCCAGTTGCTGT TAGCGGGGCTCCGCGGGGTGCAAGACGCCCACTAATTT
SeqID5	960	G " G " CA " G " " C " " " " C " G " C " C " C " GA " G " C " C " C " C " GA " G " " " C " CC "
SeqID2	1017	GGCACAGGTAAAGCAAGTTGTACAAGGGAAAGAGGAAACGCCAGCCTCATTCTTAGAAAG
SeqID5	1020	" " C " " " " G " " " " G " G " G " G " G " C " G " " " " G " A " C " " AGC " " C " G " G " "
SeqID2	1077	ATTAAAAGAGGCTTACAGAATGTATACTCCCTATGACCCTGAGGACCCAGGGCAGGCTGC
SeqID5	1080	GC " G " G " " " " C " " " " G " " " " C " " " " " C " " " " " C " " " " " C " " " " CA "
SeqID2	1137	TAGTGTATTCTCTGTCCTTTATCTACCACTTAGCCCGGACATAAGAAATAAGTTACAAAG
SeqID5	1140	C " C " G " " " " AG " " C " " " " " AGC " " " " C " " " " C " G " C " " C " G " G " "

SeqID2	1197	GCTAGAAGGCCTACAGGGGTTCACACTGTCTGATTTGCTAAAAGAGGCAGAAAAGATATA
SeqID5	1200	""G""G""""G""""C""""C""""AGC""CC""""G""G""""C""G""""C""
SeqID2	1257	CAACAAAAGGGAAACCCAGAGGAAAGGGAAGAAAGATTATGGCAGCGGCAGGAAGAAAG
SeqID5	1260	""""G""""G""A""C""""G""""G""G""GC""G""""A""""G""G""
SeqID2	1317	AGATAAAAAGCGCCATAAGGAGATGACTAAAGTTCTGGCCACAGTAGTTGCTCAGAATAG
SeqID5	1320	G""C""G""A""G""C""""C""G""G""""C""G""G""C""G""C""C""C""
SeqID2	1377	AGATAAGGATAGAGGGGAAAGTAACTGGGAGATCAAAGGAAAATACCTCTGGGGAAAGA
SeqID5	1380	G""C""""C""G""C""G""C""G""""C""C""G""""G""C""C""""C""G""
SeqID2	1437	CCAGTGTGCCTATTGCAAGGAAAAGGGACATTGGGTTGCGGATTGCCCCGAAACGACCCCG
SeqID5	1440	""""C""""C""""G""""C""C""""GA""G""C""""C""GA""G""A""
SeqID2	1497	GAAGAAACCCGCCAACTCCACTCTCCTCTAA
SeqID5	1500	""""G""""AG""C""G""G""G""

SeqID11	1	ATGGAAAGTCCAACGCACCCAAAACCCCTCTAAAGATAAGACTCTCTCGTGGAACCTTAGCG
SeqID8	1	""""GTCC""C""C""""C""G""""C""G""C""""C""G""C""""A""G""T""
SeqID11	61	TTTCTGGTGGGGATCTTATTACAATAGACATAGGAATGGCCAATCCTAGTCCACACCAA
SeqID8	61	""C""""""C""""C""G""C""C""T""""T""C""""""C""CTCC""C""C""GG
SeqID11	121	ATATATAATGTAACCTTGGGTAATAACCAATGTACAACTAACACCCAAGCTAACGCCACC
SeqID8	121	""C""C""""G""C""""G""C""""G""G""C""""G""C""T""""
SeqID11	181	TCTATGTTAGGAACCTTAACCGATGCCTACCTACCTACATGTTGACTTATGTGACCTA
SeqID8	181	""""C""G""C""C""G""A""""A""""C""""G""""G""C""G""""G""
SeqID11	241	GTGGGAGACACCTGGGAACCTATAGTCCCTAAACCCAACCAATGTAAAACACGGGGCACGT
SeqID8	241	""""G""""""""G""C""TCCG""G""""C""""""G""G""T""""CA""G
SeqID11	301	TACTCCTCCTCAAATATGGATGTAAACTACAGATAGAAAAAACAGCAACAGACATAC
SeqID8	301	""""""C""G""""C""C""G""C""""C""G""G""G""G""G""C""C""
SeqID11	361	CCCTTTTACGTCTGCCCCGACATGCCCCCTCGTTGGGGCCAAAGGGAACACATTGTGGA
SeqID8	361	""""C""T""G""""T""C""""""""CC""C""C""""C""C""C""G""
SeqID11	421	GGGGCACAAGATGGGTTTTGTGCCGCATGGGGATGTGAGACCACCGGAGAAGCTTGGTGG
SeqID8	421	""""C""G""""C""C""""T""C""""C""""A""""A""G""G""C""""
SeqID11	481	AAGCCACCTCCTCATGGGACTATATCAGTAAAAAGAGGGAGTAGTCAGGACAATAGC
SeqID8	481	""""""C""""""C""""""C""""G""G""G""CTCCTCC""""""CTC"
SeqID11	541	TGTGAGGGAAAATGCAACCCCTGGTTTTGCAGTTACCCAGAAGGGAAGACAAGCCTCT
SeqID8	541	""""C""G""""""G""C""""""""G""C""""""C""G""G""C""C"
SeqID11	601	TGGGACGGACCTAAGATGTGGGGATTGCGACTATACCGTACAGGATATGACCCTATCGCT
SeqID8	601	""""T""C""C""""""""CC""A""G""G""A""G""C""""C""T""C"
SeqID11	661	TTATTACGGTGTCCCGGCAGGTATCAACCATTACGCCGCCTCAGGCAATGGGACCAAAC
SeqID8	661	C""G""""A""""A""""G""C""""C""C""C""C""C""C""C""C""C""C"
SeqID11	721	CTAGTCTTACCTGATCAAAAACCCCATCCCGACAATCTCAAACAGGGTCCAAAGTGGCG
SeqID8	721	""G""GC""G""""C""G""G""""C""A""G""G""C""G""C""G""G""C"
SeqID11	781	ACCCAGAGGCCCCAAACGAATGAAAGCGCCCAAGGTCTGTTGCCCCACCACCATGGGT
SeqID8	781	""""""G""C""""GTCT""C""""G""""""C""""""C"
SeqID11	841	CCCAAACGGATTGGGACCGGAGATAGGTTAATAAATTTAGTACAAGGGACATACCTAGCC
SeqID8	841	""""GA""""C""A""G""C""C""G""C""CC""G""G""G""C""C""G""G"
SeqID11	901	TTAAATGCCACCGACCCCAACAAAATAAGACTGTTGGCTCTGCCTGGTTTCTCGACCA
SeqID8	901	C""G""""A""""G""C""G""C""G""C""G""C""G""C""G""C""CA""G""C"
SeqID11	961	CCCTATTACGAAGGGATTGCAATCTTAGGTAACTACAGCAACCAAACACCCCCCA
SeqID8	961	""C""T""G""C""C""C""G""C""C""C""C""C""C""G""C""C""C""C"
SeqID11	1021	TCCTGCCTATCTACTCCGCAACACAACTAACTATATCTGAAGTATCAGGGCAAGGAATG
SeqID8	1021	""""G""C""C""C""G""""G""G""C""C""""G""G""T""C""G""C""C"
SeqID11	1081	TGCATAGGGACTGTTCTTAAACCCACCAGGCTTTGTGCAATAAGACACAACAGGGACAT
SeqID8	1081	""""T""C""A""G""C""G""""""CC""""C""C""C""G""C""C""C"
SeqID11	1141	ACAGGGGCGCACTATCTAGCCGCCCCCAACGGCACCTATTGGGCCTGTAACACTGGACTC
SeqID8	1141	""""C""C""G""T""T""""T""""C""""C""""A""C""G"

SeqID11	1201	ACCCCATGCATTTC	CCATGGCGGTGCTCAATTGGACCTCTGATTTTGTGTCTTAATCGAA
SeqID8	1201	""""C""""C""""	""T""""G""C""""""C""C""""GC"G" T""G
SeqID11	1261	TTATGGCCCAGAGT	GACTTACCATCAACCCGAATATGTGTACACACATTTGCCAAAGCT
SeqID8	1261	C"G""""""G""""	C""""C"G" T""G""""""C""C""""G""
SeqID11	1321	GTCAGGTTCCGAAG	AAGAACCAATATCACTAACGGTTGCCCTTATGTTGGGAGGACTTACT
SeqID8	1321	""G""""A"G""G" G" C" C" C" G" A" G" ""G" C" ""G" C" G" A	
SeqID11	1381	GTAGGGGGCATAGC	CGCGGGGGTCGGAACAGGGACTAAAGCCCTCCTTGAAACAGCCTGA
SeqID8	1381	""G""""T""T""T""G" C""C" C" G" ""G" G" ""	

**Fig. 6** DNA sequence comparison of the wild type „env“ gene (Seq.ID1) against the codon- and signal optimized „env“ gene (gp85) (Seq.ID7).

SeqID1	1	ATGGAAAGTCCAACGCACCCAAAACCTCTAAAGATAAGACTCTCTCGTGGAACCTTAGCG
SeqID7	1	""""GTCC""C""C""""C""G""""C""G""C""""C""G""C""""A""G""T""
SeqID1	61	TTTCTGGTGGGGATCTTATTTACAATAGACATAGGAATGGCCAATCCTAGTCCACACCAA
SeqID7	61	""C""""""C""C""G""C""C""T""""T""C""""""C""CTCC""C""C""GG
SeqID1	121	ATATATAATGTAACCTGGGTAATAACCAATGTACAACTAACACCCAAGCTAACGCCACC
SeqID7	121	""C""C""""G""C""""G""C""""G""G""C""""G""C""T""""
SeqID1	181	TCTATGTTAGGAACCTTAACCGATGCCTACCCTACCCTACATGTTGACTTATGTGACCTA
SeqID7	181	""""C""G""C""C""G""A""""A""""C""""G""""G""C""G""""G""
SeqID1	241	GTGGGAGACACCTGGGAACCTATAGTCCTAAACCCAACCAATGTAAACACGGGGCACGT
SeqID7	241	""""G""""""G""C""TCCG""G""""C""""G""G""T""""CA""G
SeqID1	301	TACTCCTCCTCAAAATATGGATGTAAACTACAGATAGAAAAAACAGCAACAGACATAC
SeqID7	301	""""C""G""""C""C""G""C""G""G""G""G""G""G""G""C""
SeqID1	361	CCCTTTTACGTCTGCCCCGGACATGCCCCCTCGTTGGGGCCAAAGGGAACACATTGTGGA
SeqID7	361	""""C""T""G""""T""C""""""C""C""C""C""C""C""C""C""
SeqID1	421	GGGGCACAAGATGGGTTTTGTGCCGCATGGGGATGTGAGACCACGGAGAAGCTTGGTGG
SeqID7	421	""""C""G""""C""C""""T""C""""C""A""A""G""G""C""
SeqID1	481	AAGCCACCTCCTCATGGGACTATATCACAGTAAAAAGAGGGAGTAGTCAGGACAATAGC
SeqID7	481	""""C""""C""""C""""G""G""G""G""CTCCTCC""""CTC""
SeqID1	541	TGTGAGGGAAATGCAACCCCTGGTTTTGCAGTTCACCCAGAAGGGAAGACAAGCCTCT
SeqID7	541	""""C""G""""G""C""""C""G""C""G""G""C""G""G""C""
SeqID1	601	TGGGACGGACCTAAGATGTGGGGATTGCGACTATACCGTACAGGATATGACCCTATCGCT
SeqID7	601	""""T""C""C""""CC""A""G""G""A""G""C""""C""T""C
SeqID1	661	TTATTCACGGTGTCCCAGGATATCAACCATTACGCCGCTCAGGCAATGGGACCAAAAC
SeqID7	661	C""G""""A""""A""""G""C""""C""C""C""C""C""C""C""C""
SeqID1	721	CTAGTCTTACCTGATCAAAAACCCCATCCCGACAATCTCAAACAGGGTCCAAAGTGGCG
SeqID7	721	""G""GC""G""""C""G""G""""C""A""G""G""C""G""""C""G""G""C
SeqID1	781	ACCCAGAGGCCCAACGAATGAAAGCGCCCAAGGTCTGTTGCCCCCACCACCATGGGT
SeqID7	781	""""G""C""""GTCT""C""""G""""G""""G""C""
SeqID1	841	CCCAAACGGATTGGGACCGGAGATAGGTTAATAAATTTAGTACAAGGGACATACCTAGCC
SeqID7	841	""""GA""""C""A""G""C""C""G""G""G""C""C""G""G""
SeqID1	901	TTAAATGCCACCGACCCCAACAAACTAAAGACTGTTGGCTCTGCCTGGTTTCTCGACCA
SeqID7	901	C""G""""A""""G""C""G""C""G""C""G""G""G""G""CA""G""C
SeqID1	961	CCCTATTACGAAGGGATTGCAATCTTAGGTAACACAGCAACCAACAAACCCCCCCCCA
SeqID7	961	""""C""T""G""C""C""C""G""C""""TC""""G""C""_""""C
SeqID1	1021	TCCTGCCTATCTACTCCGCAACACAACTAACTATATCTGAAGTATCAGGGCAAGGAAT
SeqID7	1020	C""""G""C""C""C""G""G""G""C""C""G""G""T""C""G""C""
SeqID1	1080	GTGCATAGGGACTGTTCTTAAACCCACCAGGCTTTGTGCAATAAGACACAACAGGGACA
SeqID7	1080	""""T""C""A""G""C""G""""CC""""C""C""G""C""C""
SeqID1	1140	TACAGGGGCGCACTATCTAGCCGCCCCCAACGGCACCTATTGGGCCTGTAACACTGGACT
SeqID7	1140	C""""C""C""C""G""T""T""T""C""""C""""C""A""C""

SeqID1	1200	CACCCCATGCATTTCATGGCGGTGCTCAATTGGACCTCTGATTTTGTGTCTTAATCGA
SeqID7	1200	G""""C""""C""""T""""G""C""""""C""C""""GC"G""T""
SeqID1	1260	ATTATGGCCCAGAGTGACTTACCATCAACCCGAATATGTGTACACACATTTTGCCAAAGC
SeqID7	1260	GC"G""""""G""""C""""C""G""T""G""""""C""C""""""G""
SeqID1	1320	TGTCAGGTTCCGAAGAGAACCAATATCACTAACGGTTGCCCTTATGTTGGGAGGACTTAC
SeqID7	1320	""G""""""A"G""G""G""C""C""C""G""A""G""""G""C""G""C""G""
SeqID1	1380	TGTAGGGGGCATAGCCGCGGGGTGGAACAGGGACTAAAGCCCTCCTTGAAAACAGCCCA
SeqID7	1380	A""G""""""T""T""T""""G""C""""C""C""G""""G""G""""""
SeqID1	1440	GTTCAGACAACACTACAAATGGCCATGCACACAGACATCCAGGCCCTAGAAGAATCAATTAG
SeqID7	1440	""""""""""""""""""""""""""""""""G""G""""
SeqID1	1500	TGCCTTAGAAAAGTCCCTGACCTCCCTTTCTGAAGTAGTCTTACAAAACAGACGGGGCCT
SeqID7	1500	C""T""""""A""""""""C""""""C""""""A""""
SeqID1	1560	AGATATTCTATTCTTACAAGAGGGAGGGCTCTGTGCCGATTGAAAGAAGAATGTTGCTT
SeqID7	1560	""""""""C""""""""A""""""A""""""T""
SeqID1	1620	CTATGCGGATCACACCGGACTCGTCCGAGACAATATGGCCAAATTAAGAGAAAGACTAAA
SeqID7	1620	T""""A""""""T""A""""T""T""T""T""T""T""
SeqID1	1680	ACAGCGGCAACAACCTGTTTGACTCCCAACAGGGATGGTTGAAGGATGGTTCAACAAGTC
SeqID7	1680	""""""""""""""""""""""""""""""""
SeqID1	1740	CCCCTGGTTTACAACCCTAATTTCCCTCCATTATGGGCCCTTACTAATCCTACTCCTAAT
SeqID7	1740	""""C""""""T""""G""T""G""""
SeqID1	1800	TCTCCTCTTCGGCCCATGCATCCTTAACCGATTAGTACAATTCGTAAAAGACAGAATATC
SeqID7	1800	""""""""""G""G""""""
SeqID1	1860	TGTGGTACAGGCTTTAATTTTAACCCAACAGTACCAACAGATAAAGCAATACGATCCGGA
SeqID7	1860	G""""""A""C""G""""""
SeqID1	1920	CCGACCATGA
SeqID7	1920	""""""



**Protein sequence comparison of the wild type “gag” protein (Seq.ID4) against the protein sequence of the codon-optimized “gag” protein (Seq.ID6).**

[illegible]

**Protein sequence comparison of the wild type „env“ protein (Seq.ID3) against the protein sequence of the codon- and signal optimized „env“ protein (gp70) (Seq.ID10).**

SeqID3	1	MESPTHPKPSKDKTLSWNLAFVLGILFTIDIGMANPSPHQIYNVTWVITNVQNTQANAT
SeqID10	1	*****MV*****PR*****
SeqID3	61	SMLGTLTDAYPTLHVDLCDLVGDTWEPIVLNPTNVKHGARYSSSKYGCKTTDRKKQQQTY
SeqID10	61	*****p*****
SeqID3	121	PFYVCPGHAPSLGPKGTHCGGAQDGFCAAWGCETTGEAWWKPTSSWDYITVKRGSSQDNS
SeqID10	121	*****
SeqID3	181	CEGKCNPVLVLQFTQKGRQASWDGPKMWGLRLYRTGYDPIALFTVSRQVSTITPPQAMGPN
SeqID10	181	*****
SeqID3	241	LVLDPDQKPPSRQSQTGSKVATQRPTNESAPRSVAPTTMGPKRIGTGDRLINLVQGYLA
SeqID10	241	*****
SeqID3	301	LNATDPNKTKDCWLCLVSRPPYYEGIAILGNYSNQTNPPPSCLSTPQHKLTISEVSGQGM
SeqID10	301	*****
SeqID3	361	CIGTVPKTHQALCNKTQQGHTGAHYLAAPNGTYWACNTGLTPCISMAVLNWTSDFCVLIE
SeqID10	361	*****V*****
SeqID3	421	LWPRVTTYHQPEYVYTHFAKAVRFRREPISLTVALMLGGLTVGGIAAGVGTGTKALLET
SeqID10	421	*****

**Fig. 9** Protein sequence comparison of the wild type „env“ protein (Seq.ID3) against the protein sequence of the codon- and signal optimized „env“ protein (gp85) (Seq.ID9).

SeqID3	1	MESPTHPKPSKDKTLSWNLAFVLGILFTIDIGMANPSPHQIYNVTWVITNVQTNTQANAT
SeqID9	1	*****MY*****PR*****
SeqID3	61	SMLGTLTDAYPTLHVDLCDLVGDTWEPIVLNPTNVKHGARYSSSKYGCKTTDRKKQQQTY
SeqID9	61	*****p*****
SeqID3	121	PFYVCPGHAPSLGPKGTHCGGAQDGFCAAWGCETTGEAWWKPTSSWDYITVKRGSSQDNS
SeqID9	121	*****
SeqID3	181	CEGKCNPLVLQFTQKGRQASWDGPKMWGLRLYRTGYDPIALFTVSRQVSTITPPQAMGPN
SeqID9	181	*****
SeqID3	241	LVLDPQKPPSRQSQTGSKVATQRPQTNESAPRSVAPTTMGPKRIGTGDRLINLVQGTyla
SeqID9	241	*****
SeqID3	301	LNATDPNKTDCWLCLVSRPPYEGIAILGNYSNQTNPPPSCLSTPQHKLTISEVSGQGM
SeqID9	301	*****
SeqID3	361	CIGTVPKTHQALCNKTQQGHTGAHYLAAPNGTYWACNTGLTPCISMAVLNWTSDFCVLIE
SeqID9	361	*****v*****
SeqID3	421	LWPRVTYHQPEYVYTHFAKAVRFRREPISLTVALMLGGLTVGGIAAGVGTGTKALLETAQ
SeqID9	421	*****
SeqID3	481	FRQLQMAMHTDIQALEESISALEKSLTSLSEVVLQNRRLDILFLQEGGLCAALKEECCF
SeqID9	481	*****v*****
SeqID3	541	YADHTGLVRDNMAKLRLRERLKQRQQLFDSQQGWFEWFKSPWFTTLISSIMGPLLILLI
SeqID9	541	*****L*****
SeqID3	601	LLFGPCILNRLVQFVKDRISVVQALILTQQYQQIKQYDPPDRP
SeqID9	601	*****v*****